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MAY 08 2000

P. Mertz 1646

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/220,920TECH CENTER 1600/2900
DATE: 04/24/2000
TIME: 08:55:49

Input Set: I220920.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

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P#9

1 <110> APPLICANT: Milbrandt, Jeffrey D.
2 Baloh, Robert H.
3 <120> TITLE OF INVENTION: Artemin, A Novel Neurotrophic Factor
4 <130> FILE REFERENCE: 6029-7996
5 <140> CURRENT APPLICATION NUMBER: US/09/220,920
6 <141> CURRENT FILING DATE: 1998-12-24
7 <150> EARLIER APPLICATION NUMBER: 09/163,283
8 <151> EARLIER FILING DATE: 1998-09-29
9 <150> EARLIER APPLICATION NUMBER: 60/108,148
10 <151> EARLIER FILING DATE: 1998-11-12
11 <150> EARLIER APPLICATION NUMBER: 09/218,698
12 <151> EARLIER FILING DATE: 1998-12-22
13 <160> NUMBER OF SEQ ID NOS: 120
14 <170> SOFTWARE: PatentIn Ver. 2.0
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16 <211> LENGTH: 696
17 <212> TYPE: DNA
18 <213> ORGANISM: Homo sapiens
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23 ctcatccag ggggacgcac ggcccgtgg tgcagtgga gagccggcg gccgcccgg 240
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35 <213> ORGANISM: Homo sapiens
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38 ggcgggtggc gagaggcggc ccacggttct ccagggtgct ttgacgtcca tgaaggagac 120
39 cgcttcgtag cgcgtgggtc ggcagcaggg ctggctgacg ggccgggagc ccggggggcg 180
40 tcgcagggcc ccggcgccca gtaggctggc caggctgagg tcgtgtggag agcgcgcgcg 240
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42 gagegcgcgc accggcacca gctgcgagcg caggcggcag ccccgcgccc ccgctgcccg 360
43 agcgcggtg cccggggccc cagcccgcgc cgcgcgggcc ccgcggggaa gagcagatgg 420
44 ggggtgcaggc ggcgggggcg cgggcccaga aggtgcggc ggcgggcgcc gggctcttcc 480

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46      gccagccccg ccccgcccc tcgccctctc acctaccggg caggtggccg gcgggggacg 600
47      ccaggacagg cggggggcct tcgcgggggg cagggtgcg gggcgcgagg cccagggagg 660
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57      20              25              30
58      Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg
59      35              40              45
60      Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala
61      50              55              60
62      Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys
63      65              70              75              80
64      Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser
65      85              90              95
66      Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu
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Gly

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<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 4

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76      Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly
77      20              25              30
78      Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly
79      35              40              45
80      Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu
81      50              55              60
82      Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser
83      65              70              75              80
84      Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp
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86      Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys
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Gly Cys Leu Gly

115

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<211> LENGTH: 140

<212> TYPE: PRT

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 5

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95      Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro Ala Pro Pro
96      1          5          10          15
97      Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro Gly
98      20          25          30
99      Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln
100     35          40          45
101     Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu
102     50          55          60
103     Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro
104     65          70          75          80
105     His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro
106     85          90          95
107     Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg
108     100         105         110
109     Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val
110     115        120        125
111     Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
112     130        135        140
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114 <211> LENGTH: 342
115 <212> TYPE: DNA
116 <213> ORGANISM: Homo sapiens
117 <400> SEQUENCE: 6
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119      cagctggtgc cggtcgcgc gctcggcctg ggccaccgct ccgacgagct ggtgcgtttc 120
120      cgcttctgca gcggctcctg ccgcgcgcgc cgctctccac acgacctcag cctggccagc 180
121      ctactgggcg ccggggccct gcgaccgcc ccgggctccc ggcccgtcag ccagccctgc 240
122      tgccgacca cgcgctacga agcggctctc ttcattggacg tcaacagcac ctggagaacc 300
123      gtggaccgcc tctccgccac cgctcgggc tgctgggct ga 342
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125 <211> LENGTH: 351
126 <212> TYPE: DNA
127 <213> ORGANISM: Homo sapiens
128 <400> SEQUENCE: 7
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130      ctgcgctcgc agctggtgcc ggtgcgcgc gctcggcctg gccaccgctc cgacgagctg 120
131      gtgcgtttcc gcttctgcag cgctcctgc cgccgcgcgc gctctccaca cgacctcagc 180
132      ctggccagcc tactgggcgc cggggccctg cgaccgcccc cgggctcccc gcccgtcagc 240
133      cagccctgct gccgaccac gcgctacgaa gcggtctcct tcatggacgt caacagcacc 300
134      tggagaaccg tggaccgcct ctccgccacc gcctgcggct gcctgggctg a 351
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136 <211> LENGTH: 423
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142      cggggctgcc gcctgcgctc gcagctggtg ccggtgcgcg cgctcggcct gggccaccgc 180
143      tccgacgagc tgggtcggtt ccgcttctgc agcggtcct gccgcgcgc gcgctctcca 240
144      cacgacctca gcctggccag cctactgggc gccggggccc tgcgaccgcc cccgggctcc 300

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146 gtcaacagca cctggagaac cgtggaccgc ctctccgcca ccgcctgcgg ctgcctgggc 420
147 tga 423

148 <210> SEQ ID NO 9
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151 <213> ORGANISM: Homo sapiens
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154 gacgtccatg aaggagaccg cttcgtagcg cgtgggtcgg cagcaggggt ggctgacggg 120
155 ccgggagccc gggggcggtc gcagggtccc ggcgccaggt aggttggtcca ggctgaggtc 180
156 gtgtggagag cgcgcgcggc ggcaggagcc gctgcagaag cggaaacgca ccagctcgtc 240
157 ggagcgggtg cccaggccga gcgcgcgcac cggcaccagc tgcgagcgca ggcggcagcc 300
158 ccgcgcccc gctgcccag cgcggctgcc cgggccccca gc 342

159 <210> SEQ ID NO 10
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163 <400> SEQUENCE: 10

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165 gacgtccatg aaggagaccg cttcgtagcg cgtgggtcgg cagcaggggt ggctgacggg 120
166 ccgggagccc gggggcggtc gcagggtccc ggcgccaggt aggttggtcca ggctgaggtc 180
167 gtgtggagag cgcgcgcggc ggcaggagcc gctgcagaag cggaaacgca ccagctcgtc 240
168 ggagcgggtg cccaggccga gcgcgcgcac cggcaccagc tgcgagcgca ggcggcagcc 300
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170 <210> SEQ ID NO 11
171 <211> LENGTH: 423
172 <212> TYPE: DNA
173 <213> ORGANISM: Homo sapiens
174 <400> SEQUENCE: 11

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176 gacgtccatg aaggagaccg cttcgtagcg cgtgggtcgg cagcaggggt ggctgacggg 120
177 ccgggagccc gggggcggtc gcagggtccc ggcgccaggt aggttggtcca ggctgaggtc 180
178 gtgtggagag cgcgcgcggc ggcaggagcc gctgcagaag cggaaacgca ccagctcgtc 240
179 ggagcgggtg cccaggccga gcgcgcgcac cggcaccagc tgcgagcgca ggcggcagcc 300
180 ccgcgcccc gctgcccag cgcggctgcc cgggccccca gcccgcgccg cgcggcccc 360
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182 cgg 423

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184 <211> LENGTH: 159
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190 Ala Arg Arg Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro
191 20 25 30
192 Ala Pro Pro Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly
193 35 40 45
194 Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu

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195          50          55          60
196  Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser
197      65          70          75          80
198  Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala
199          85          90          95
200  Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala
201          100          105          110
202  Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg
203          115          120          125
204  Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp
205          130          135          140
206  Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
207          145          150          155
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209 <211> LENGTH: 134
210 <212> TYPE: PRT
211 <213> ORGANISM: Homo sapiens
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214      1          5          10          15
215  Gln Ala Ala Ala Ala Asn Pro Glu Asn Ser Arg Gly Lys Gly Arg Arg
216          20          25          30
217  Gly Gln Arg Gly Lys Asn Arg Gly Cys Val Leu Thr Ala Ile His Leu
218          35          40          45
219  Asn Val Thr Asp Leu Gly Leu Gly Tyr Glu Thr Lys Glu Glu Leu Ile
220          50          55          60
221  Phe Arg Tyr Cys Ser Gly Ser Cys Asp Ala Ala Glu Thr Thr Tyr Asp
222      65          70          75          80
223  Lys Ile Leu Lys Asn Leu Ser Arg Asn Arg Arg Leu Val Ser Asp Lys
224          85          90          95
225  Val Gly Gln Ala Cys Cys Arg Pro Ile Ala Phe Asp Asp Asp Leu Ser
226          100          105          110
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230          130
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233 <212> TYPE: PRT
234 <213> ORGANISM: Homo sapiens
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236  Ala Arg Leu Gly Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg
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239          20          25          30
240  Arg Tyr Cys Ala Gly Ala Cys Glu Ala Ala Ala Arg Val Tyr Asp Leu
241          35          40          45
242  Gly Leu Arg Arg Leu Arg Gln Arg Arg Arg Leu Arg Arg Glu Arg Val
243          50          55          60
244  Arg Ala Gln Pro Cys Cys Arg Pro Thr Ala Tyr Glu Asp Glu Val Ser

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VERIFICATION SUMMARY
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